

Opioids 101

North Dakota Opioid Symposium
August 2016



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Objectives

- 1) Identify legal and illegal drugs that are classified as opioids
- 2) Understand the magnitude of the opioid epidemic and its impact on morbidity, as well as mortality
- 3) Describe strategies used to reduce the morbidity & mortality associated with the misuse of opioids

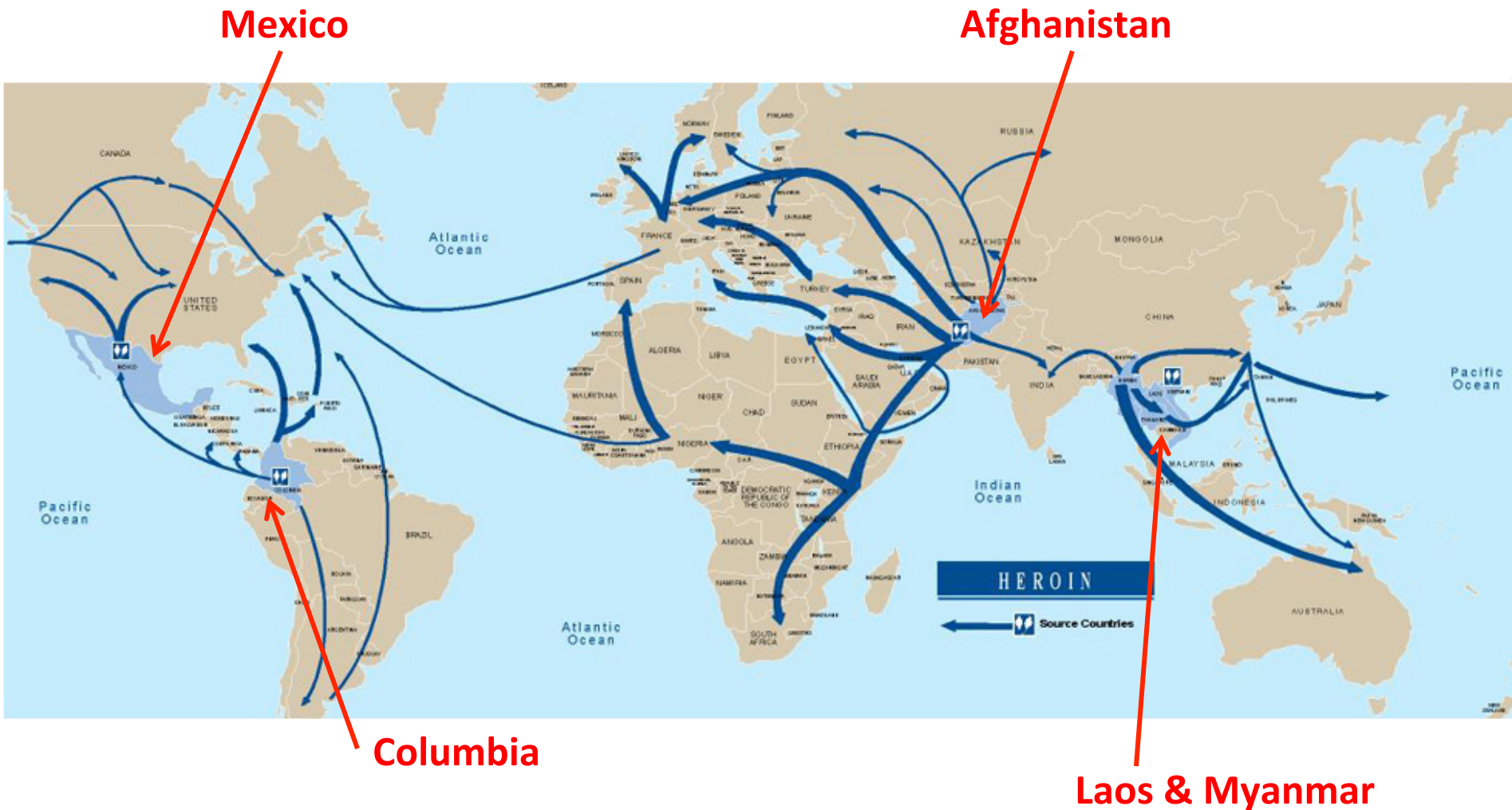
WHAT ARE OPIOIDS

Opioids

- The term 'opioids' includes heroin & prescription opioids (for example, prescription pain medication)
- Morphine, which can be found in the Asian opium poppy plant, is used to make heroin
- Primary use of prescription opioids is to relieve pain

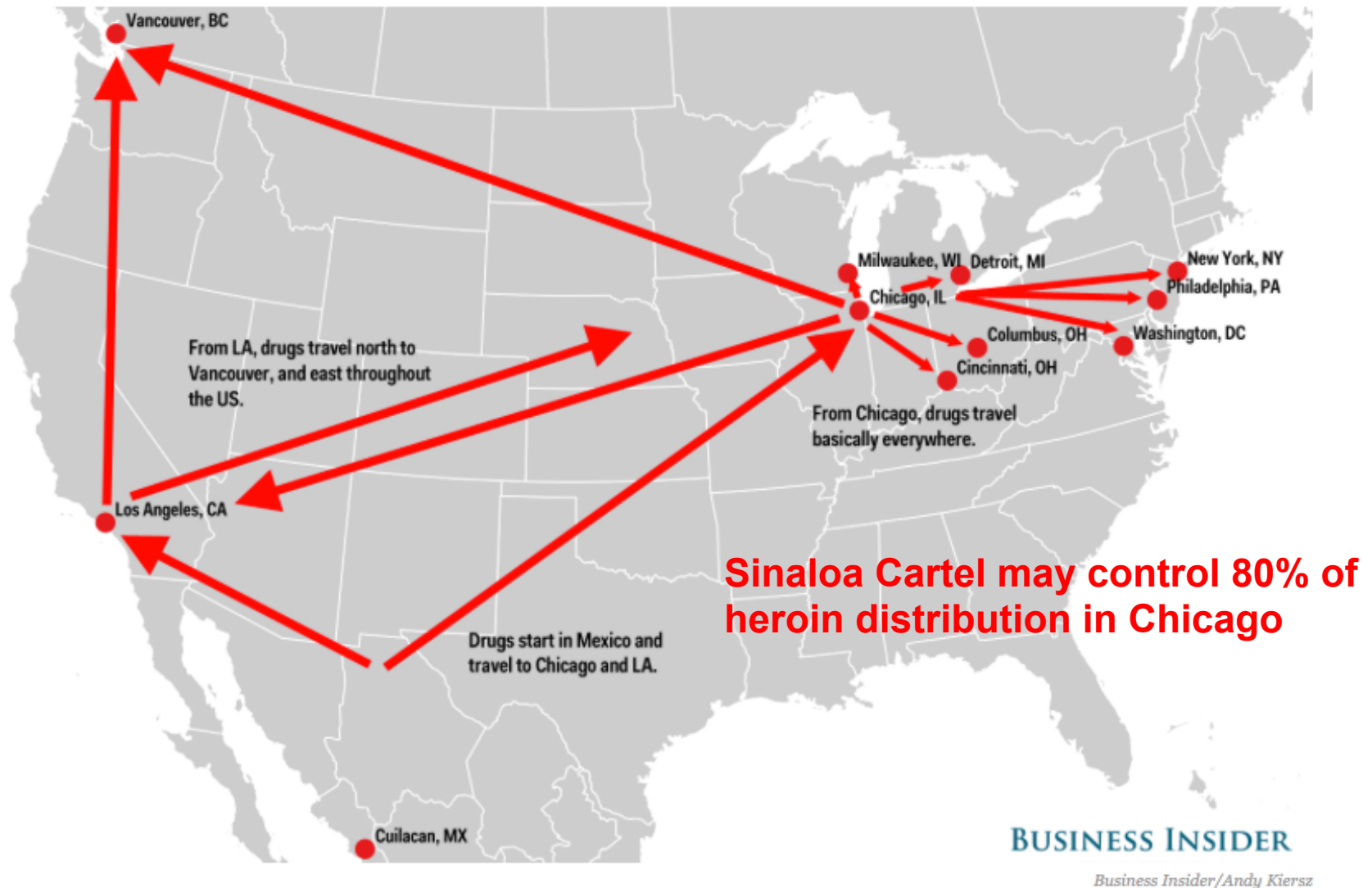


Global Distribution of Heroin



SOURCE: DEA Museum

Sinaloa Cartel Heroin Distribution Map



This map, developed based on the testimony of former Sinaloa operatives, shows the cartel's distribution network as of the late 2000s.

Common Prescription Opioids

- Prescription opioids are medications used to treat acute & chronic pain

| Commercial Names | Street Names | Common Ways Taken |
|--|---|------------------------------|
| Oxymorphone (Opana®) | Ops, Pandas, Stop Signs, Blues, Mrs. O, O Bomb | Swallowed, snorted, injected |
| Oxycodone (OxyContin®, Percodan®, Percocet®) | O.C., Oxies, perks, 10s (10mg), blues (5 mg), Ps, school bus | Swallowed, snorted, injected |
| Fentanyl (Actiq®, Duragesic®, Sublimaze®) | Gel, Patches, Suckers, Apache, China Girl, China White, Dance Fever, Friend, Tango & Cash | Injected, smoked, snorted |
| Hydrocodone (Vicodin®, Lorcet®) | Babies (5 mg, ES (7.5mg), robin eggs, Vs, Vikes (10mg) | Swallowed, snorted, injected |
| Hydromorphone (Dilaudid®) | D, Dillies, Footballs, Ds, K4, Dilauda | Injected, rectal |

Fentanyl

Legal Fentanyl:

- Powerful prescription opioid used to treat pain, may be prescribed as a patch
- Fentanyl is at least 20 times more powerful than heroin

Illegal Fentanyl:

- May be coming into the United States from China & Mexico as a powder
- Used by heroin dealers, mixed into heroin, to make the heroin more powerful

Heroin mixed with fentanyl is extremely dangerous!

Effects of Opioids

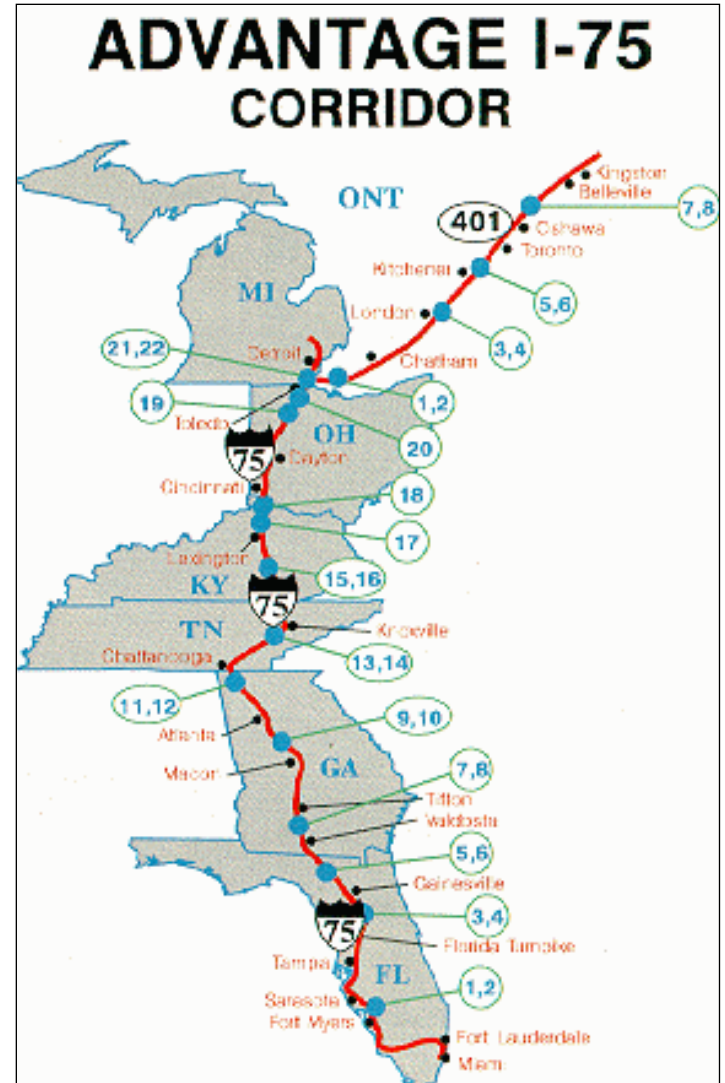
- Pain relief
- Euphoria
- Constipation
- Drowsiness
- Sedation
- Weakness
- Dizziness
- Nausea
- Impaired coordination
- Confusion
- Dry mouth
- Itching
- Sweating
- Clammy skin

Effects of Opioids on the Body/Brain

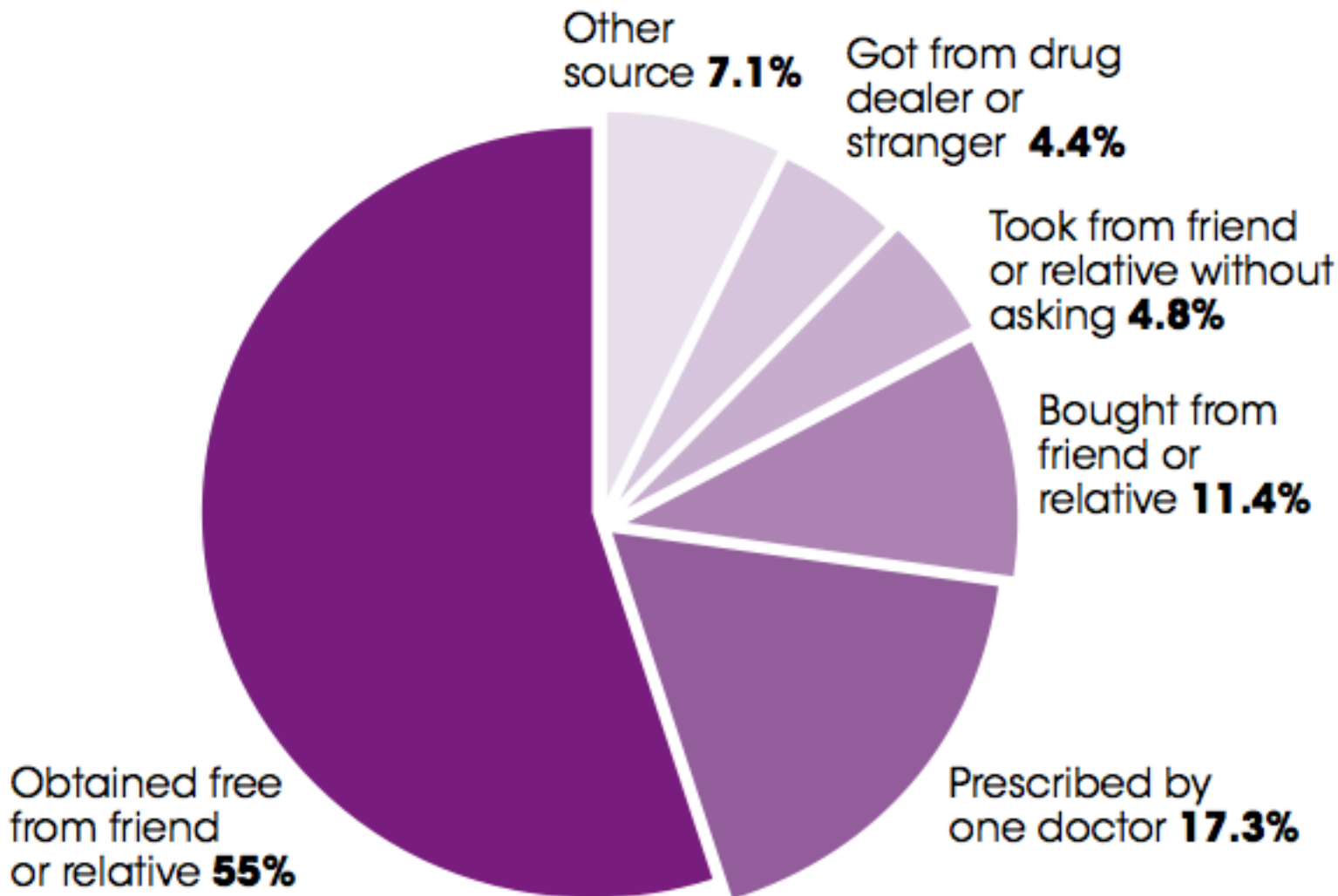
- When you take heroin, it becomes morphine again, & it attaches to the opioid receptors in your brain
- It relieves pain & may make some people feel euphoric
- People like the way the drug makes them feel, so some people may continue to use it even after they are no longer in pain

Sources of Opioids

- Prescriptions for legitimate pain
- Diversion of prescriptions for legitimate pain
- Theft of pain medications
- Illicit pain clinics (“pill mills”)
- Illicit manufacturing or distribution fentanyl
- Illegal distribution of heroin



People who abuse prescription painkillers get drugs from a variety of sources⁷



HARM ASSOCIATED WITH NON-MEDICAL USE, ABUSE & ADDICTION

Opioid Misuse & Addiction

Misuse and abuse of opioids are associated with:

- Opioid overdose death
- Infectious diseases like HIV & Hepatitis C
- Mental health problems
- Family & social problems
- Employment problems
- Car accidents
- Crime

HIV Outbreak in Rural Indiana

- Scott County, Indiana (population ~4,200) is about 90 miles west of Cincinnati
- As of June 2015, 174 confirmed cases of HIV that have been linked to injection drug use
- 96% of those infected reported injection drug use (Oxymorphone)
- 92% are co-infected with Hepatitis C
- Age range is 18–57 years old; 55% are male
- 10 commercial sex workers were identified

Drugged Driving

- Limited surveillance data
- Distinguishing between medical and non-medical use of prescription opioids
- Defining impairment that effects someone's driving
- Road-side testing
- Poly-substance use



Heroin overdose caused mother to crash on I-74

Neonatal Abstinence Syndrome (NAS)

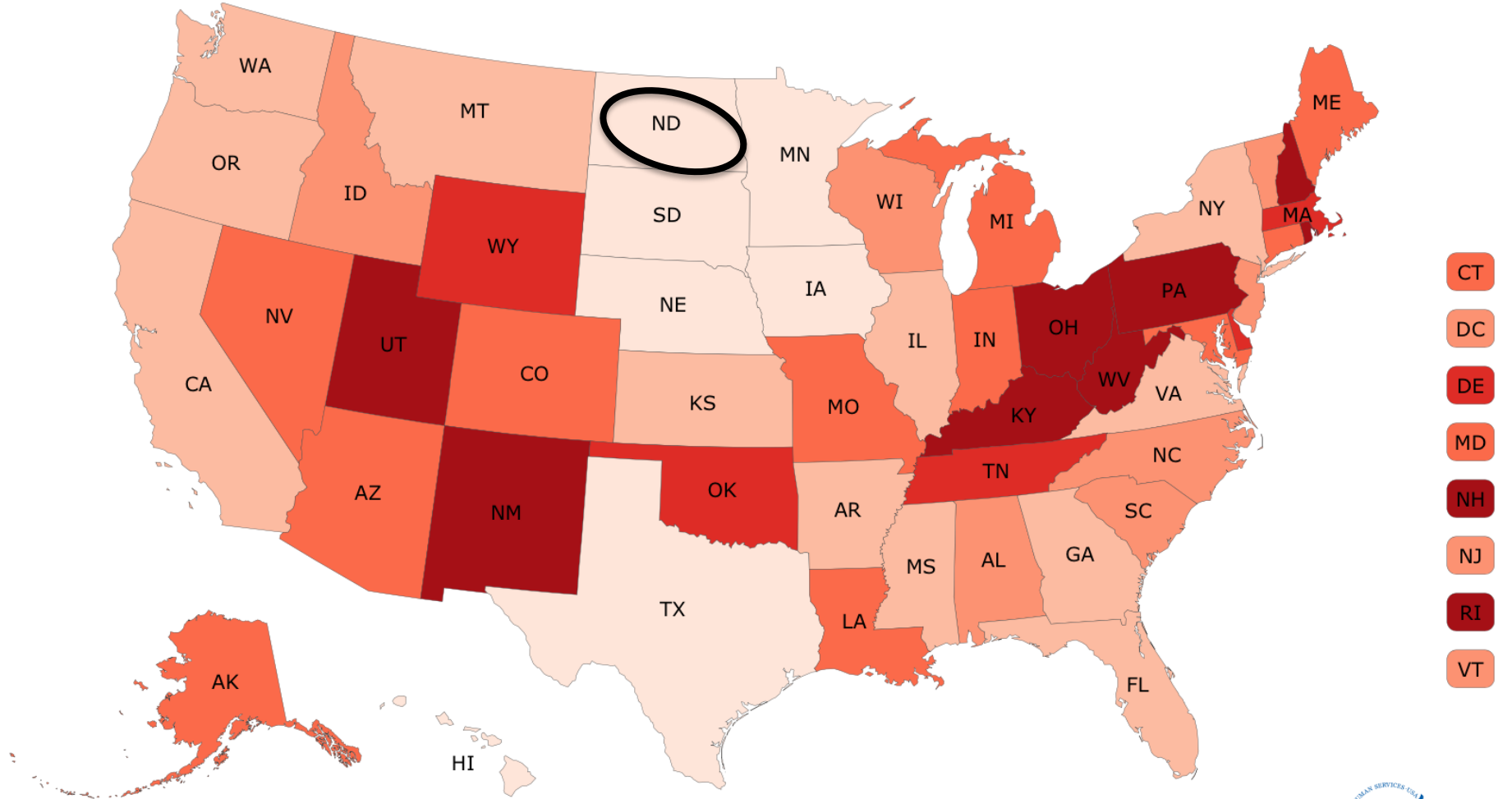
- NAS occurs when expectant women take opioids which pass through the placenta & the baby becomes dependent
- After delivery the baby is still dependent on opioids
- Characterized by a wide array of symptoms occurring within 72 of birth:
 - Excessive high-pitched cry
 - Sleep-wake disturbances
 - Feeding difficulties



Opioid Overdose

- Hallmark symptom of an opioid overdose is respiratory depression
- How non-medical people may identify an overdose:
 - Breathing is slow & shallow or has stopped
 - Face is pale & clammy
 - Blue or grayish lips & fingernails
 - Slow, erratic or no pulse
 - Choking or loud snoring noises (“death rattle”)
 - Will not respond to shaking or sternum rub
 - Skin may turn gray, blue or ashen

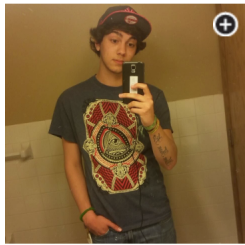
Overdose Deaths in the United States



78 people die of a fatal opioid overdose everyday in the United States



SOURCE: <https://www.cdc.gov/drug-overdose/epidemic/index.html>



Friday Bismarck police reported that 20-year-old Preston Lang died Thursday after a battle with an opioid overdose at Sanford Health-Bismarck. According to Lang's Facebook page, he had attended Bismarck High School and worked at a local pizza place.

Bismarck Police confirm Lang's death was caused by an overdose of the street drug heroin.

Family members are organizing a memorial for him at Weigel Funeral Home in Mandan.

Source: Two West Fargo students overdose on Furanyl Fentanyl

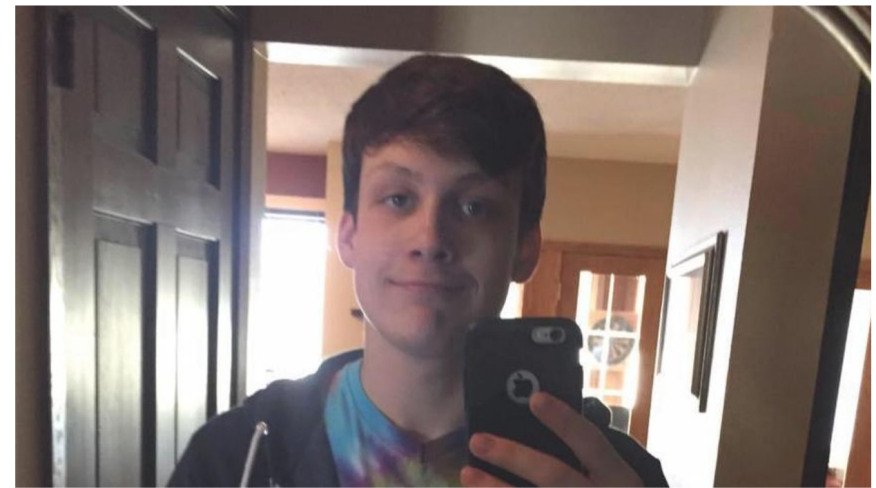
By [Jordan Schroeder](#) on May 6, 2016 at 6:53 a.m.



[Man receives life for dealing fentanyl that led to overdoses](#)

[Richmond County Daily Journal](#) - Jul 14, 2016

FARGO, N.D. (AP) — A man who told investigators he was the largest ... the internet resulted in two **overdose** deaths in the Grand Forks area.



Son's suspected overdose death leaves Fargo family devastated

FARGO—The night before he died, Shane Driscoll came home to his parents' house, got things ready for the next day, took a shower and went to...

[News/Region](#) July 6, 2016 - 8:00am



Posted: Jan 14, 2016 4:01 PM EST
Updated: Jan 18, 2016 4:01 PM EST

North Dakota officials discuss rise in heroin use

By [KXNews](#)

BISMARCK, N.D. - On Monday, we found out one person died and eight others were treated for heroin overdose over a period of six days.

But a problem with the deadly drug extends across the state, including here.

Averi Haugesag of [KXNews](#) talked with narcotics experts about heroin drug use here.

It's not something you often see here, at least not yet.



Jennifer Skjod, with the North Dakota Department of Health, said heroin use in the country has more than doubled among young adults 18 to 25 in the last decade. (KXNet photo)



Grand Forks Has Three Heroin Overdoses In Four Days

[KVRR](#) - Jun 24, 2016

Grand Forks has had three heroin **overdoses** in less than a week, and 13 ... ShareHouse in **Fargo** picks up the slack, caring for patients from all ...

20-year-old who overdosed was hospitalized since June

CAROLINE GRUESKIN [Bismarck Tribune](#) Aug 1, 2016

REDUCING HARM ASSOCIATED WITH OPIOIDS

Prevention or Treatment?

OPIOID USE

- Prescription opioids are used to treat pain, cannot prevent any use
 - Prevent use of heroin
-

OPIOID MISUSE

- Important to identify non-medical use of prescription opioids
 - Prevent transition to heroin or injection drug use
-

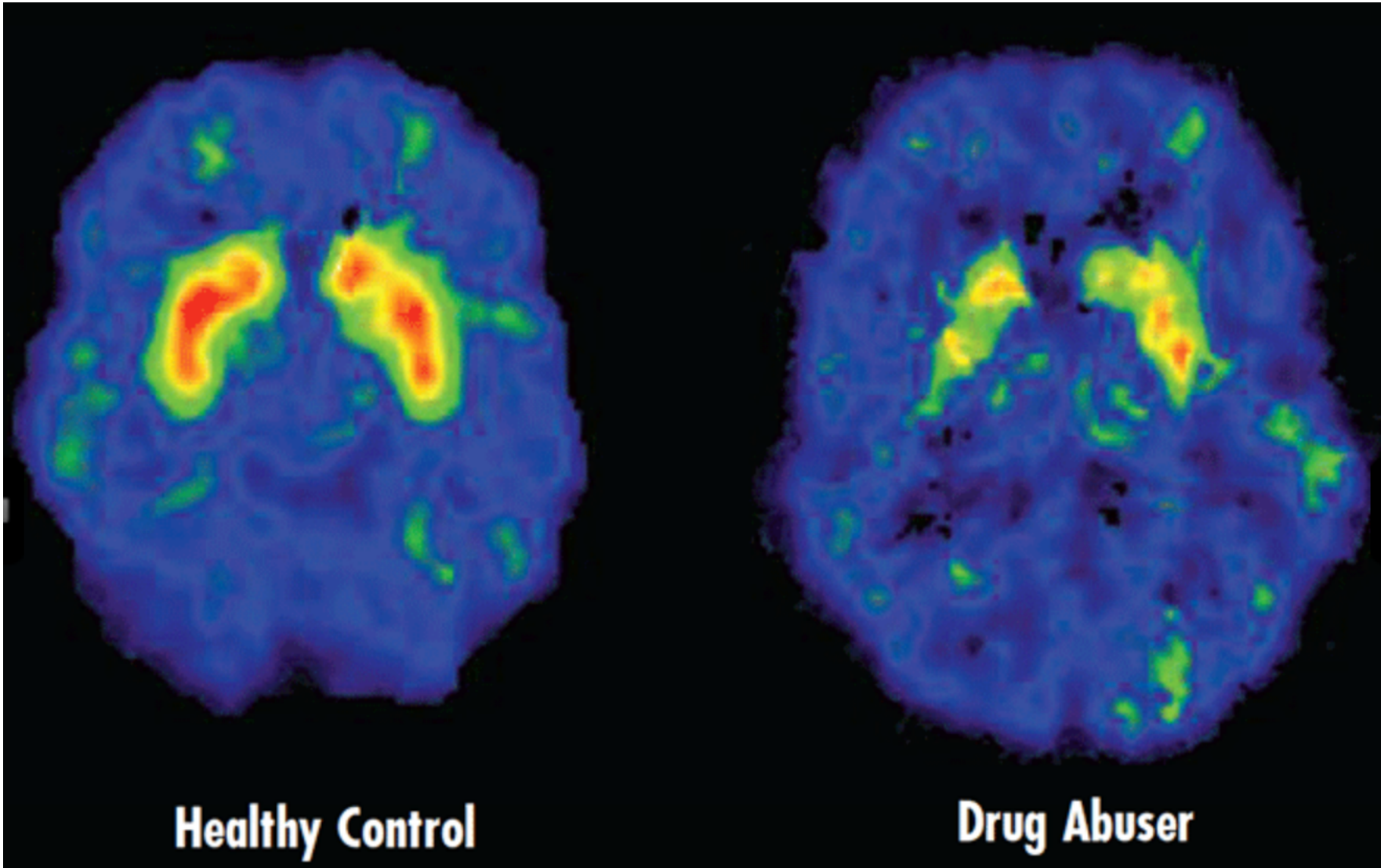
OPIOID USE DISORDER (Addiction)

- Clinical diagnosis that requires treatment from a specialist

Defining Addiction

- Addiction is a chronic disease that impact the reward, motivation, & memory areas of the brain
- Addiction is defined by:
 - ✓ Inability to consistently stop using the drug
 - ✓ Problems controlling your behavior & impulses
 - ✓ Craving for the drug
 - ✓ May not recognize the problems that it causes in your life
 - ✓ A dysfunctional emotional response

Drugs Use Changes in Brain



SOURCE: NIDA

Problems with Getting Addiction Treatment

- People may not believe they need addiction treatment (“denial”)
- People may not believe that addiction treatment works or have problems getting treatment because:
 - Lack of health insurance or ability to pay
 - Waiting lists to get into treatment
 - Very limited access to detoxification programs
 - Geographic distance to treatment program
 - Complex medical & social problems
 - Stigma

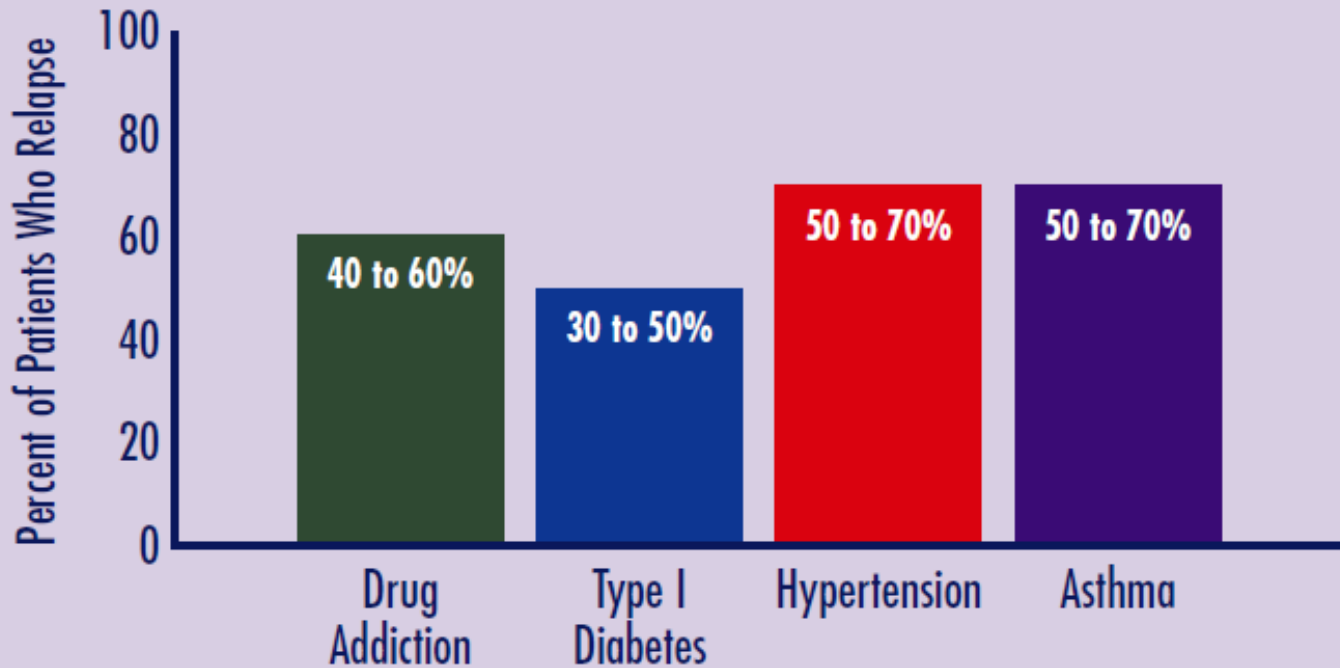
ONLY 10% OF PEOPLE WHO NEED TREATMENT, GET TREATMENT

Myths Versus Facts

Myth: Addiction treatment does not work

Fact: Addiction treatment is as effective as treatment for other chronic diseases.

COMPARISON OF RELAPSE RATES BETWEEN DRUG ADDICTION AND OTHER CHRONIC ILLNESSES



Relapse rates for drug-addicted patients are compared with those suffering from diabetes, hypertension, and asthma. Relapse is common and similar across these illnesses (as is adherence to medication). Thus, drug addiction should be treated like any other chronic illness, with relapse serving as a trigger for renewed intervention.

Source: JAMA 284:1689–1695, 2000.

Process of Recovery

Having to commit to abstinence only is like going from no exercise at all to signing up to running a marathon.

Tiny little changes can help people begin to feel more empowered, more in charge, more in control, builds a sense of self-efficacy, a sense of hopefulness—these tiny changes can begin the process that leads to quantum change.



Prevention Education & Programs

People without Opioid Use Disorders:

- 1) Prevent non-medical use of prescription opioids
- 2) Educate on risks of non-medical use → risk of overdose & addiction

People without Opioid Use Disorders:

- 1) Provide education to reduce risk of overdose & infectious diseases like HIV, Hepatitis C
- 2) Provide services until person is willing or able to get into an addiction treatment program

Needle Exchange Programs

- One-for-one exchange, you need to bring in a dirty needle to get a clean needle
- Provide supplies to reduce transmission of Hepatitis C & HIV including clean needles, bottle caps, bleach, alcohol pads & condoms
- Provide education on how to prevent transmission of HIV, Hepatitis C; as well as how to prevent overdose
- Rapid HIV, Hepatitis C, and pregnancy testing
- Provide referrals to medical, mental health & addiction treatment programs

Needle Exchange Programs

Reduce HIV & Hepatitis C transmission

- Reduce risky behaviors like sharing dirty needles & having unprotected sex
- Do not promote drug use
- Increase enrollment in drug treatment
- Cost effective

Prevention, Not Permission

U.S.

Indiana Reports More HIV Cases in Outbreak

Health officials confirm 120 HIV cases and 10 preliminary positive cases tied to Scott County



In Scott County, the heart of Indiana's HIV outbreak, a sharp increase in the number HIV cases could put pressure on Gov. Mike Pence to extend a 30-day needle-exchange program he approved in March. *PHOTO: TYLER STEWART/ASSOCIATED PRESS*

Opioid Overdose Prevention Programs

Community overdose prevention programs began in 1996 & the key components are:

- 1) training on how to identify the symptoms of an opioid overdose
- 2) how to respond, including using medication (naloxone) to reverse the overdose

Overdose prevention programs are important because:

- Many people are afraid to call 911 in response to an overdose
- Provide naloxone to bystanders, who may administer the reversal drug before medical professionals arrive on the scene

Prescription Drug Drop Boxes & Take Back Days

- Provide opportunities to safely dispose of un-used medications
- May prevent diversion of un-used medications
- Challenges in terms of who pays for disposal and the funding/location of drop boxes

Prescription drug drop-off boxes spread across U.S.

Paulina Firozi, USA TODAY 11:51 p.m. EDT July 11, 2014



(Photo: The (Louisville, Ky.) Courier-Journal, Carl Yates)

f 333 **90** **11** **4** **EMAIL** **MORE**
CONNECT TWEET LINKEDIN COMMENT

A growing number of police departments across the U.S. are adding prescription drug drop-off boxes at stations to allow people to properly dispose of expired or unneeded drugs.

Organizations like the National Association of Drug Diversion Investigators are providing grants to police departments to pay for the drop off boxes. Executive Director Charles Cichon said the organization began the program four years ago to address the lack of opportunities to safely dispose of prescriptions.

Got Drugs?

Turn in your unused or expired medication for safe disposal
Saturday, September 27th,
10 a.m. – 2 p.m.

[Click here for a collection site near you.](#)



PDMPs

- Prescription Drug Monitoring Programs (PDMPs)
- Requires registration of controlled substances
- 49 states have implemented PDMPs & the regulations guiding use varies at the state level
- Allow prescribers to view details regarding prescriptions for opioids
- Strategy to identify potential “doctor shopping”

Example PDMP Report

mickey mouse

DATE:1/27/2014 10:20:44 AM

PATIENT RX HISTORY REPORT

Page 2 of 4

| Fill Date | Product, Str, Form | Qty | Days | Patient | Prescriber | Written | Rx # | Daily MED ¹ | Active ² | Pharm | Pay ³ |
|------------|---------------------------------------|-----|------|---------|------------|------------|----------|------------------------|---------------------|--------|------------------|
| 1/8/2014 | CARISOPRODOL 350 MG TAB | 90 | 30 | 1416 | PRE 1 | 12/17/2013 | 729909 | - | N | PHARM1 | CI |
| 1/6/2014 | ALPRAZOLAM 2 MG TAB | 120 | 30 | 1416 | PRE 1 | 11/16/2013 | 725899 | - | N | PHARM1 | CI |
| 12/28/2013 | HYDROMORPHONE 4 MG TAB | 120 | 30 | 1416 | PRE 2 | 11/30/2013 | 729258 | 64 | N | PHARM1 | CI |
| 12/28/2013 | MORPHINE 30 MG TER | 60 | 30 | 1416 | PRE 2 | 11/30/2013 | 729259 | 60 | N | PHARM1 | CI |
| 12/17/2013 | CARISOPRODOL 350 MG TAB | 90 | 30 | 2197 | PRE 1 | 12/17/2013 | 04533661 | - | N | PHARM2 | M1 |
| 12/13/2013 | ALPRAZOLAM 2 MG TAB | 120 | 30 | 1416 | PRE 1 | 11/16/2013 | 725899 | - | N | PHARM1 | C |
| 11/27/2013 | HYDROMORPHONE 4 MG TAB | 120 | 30 | 1416 | PRE 2 | 11/21/2013 | 726729 | 64 | N | PHARM1 | C |
| 11/27/2013 | MORPHINE 30 MG TER | 60 | 30 | 1416 | PRE 2 | 11/27/2013 | 726730 | 60 | N | PHARM1 | C |
| 11/18/2013 | ALPRAZOLAM 2 MG TAB | 120 | 30 | 1416 | PRE 1 | 11/16/2013 | 725899 | - | N | PHARM1 | C |
| 11/16/2013 | ALPRAZOLAM 2 MG TAB | 16 | 4 | 2197 | PRE 1 | 11/16/2013 | 04532978 | - | N | PHARM2 | M1 |
| 11/9/2013 | CARISOPRODOL 350 MG TAB | 90 | 30 | 2197 | PRE 1 | 11/9/2013 | 04532830 | - | N | PHARM2 | M1 |
| 10/29/2013 | HYDROMORPHONE 4 MG TAB | 120 | 30 | 2822 | PRE 2 | 10/29/2013 | 974745 | 64 | N | PHARM1 | CI |
| 10/29/2013 | MORPHINE 30 MG TER | 60 | 30 | 2822 | PRE 2 | 10/29/2013 | 974744 | 60 | N | PHARM1 | CI |
| 10/21/2013 | ALPRAZOLAM 2 MG TAB | 120 | 30 | 2197 | PRE 1 | 10/21/2013 | 04532365 | - | N | PHARM2 | M1 |
| 10/15/2013 | HYDROMORPHONE 4 MG TAB | 84 | 14 | 2822 | PRE 3 | 10/14/2013 | 973646 | 96* | N | PHARM1 | CI |
| 10/15/2013 | MORPHINE 30 MG TER | 28 | 14 | 2197 | PRE 3 | 10/14/2013 | 02238023 | 60 | N | PHARM2 | M1 |
| 9/27/2013 | ALPRAZOLAM 2 MG TAB | 120 | 30 | 1416 | PRE 1 | 6/20/2013 | 713858 | - | N | PHARM3 | C |
| 9/19/2013 | ALPRAZOLAM 2 MG TAB | 120 | 30 | 2197 | PRE 1 | 9/19/2013 | 4531700 | - | N | PHARM2 | M1 |
| 9/18/2013 | CARISOPRODOL 350 MG TAB | 90 | 30 | 2197 | PRE 1 | 8/23/2013 | 4531164 | - | N | PHARM2 | M1 |
| 9/5/2013 | APAP/HYDROCODONE BI 325 MG-7.5 MG TAB | 20 | 3 | 1416 | PRE 4 | 9/5/2013 | 719904 | 50 | N | PHARM3 | C |

STIGMA

Addiction Stereotypes



SOURCE: Chris Arnade's ["Faces of Addiction"](#)

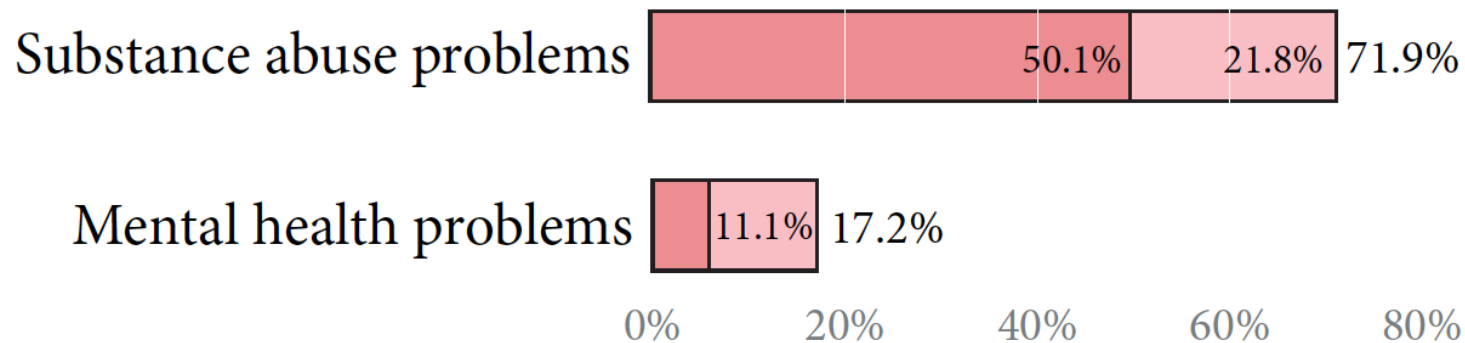
Impact of Stigma

1. People fail to seek treatment:
 - 75-90% of people who need treatment, do not receive treatment
 - Don't want to be labeled an “addict”
2. Medical profession often fails to treat patients with substance use disorder properly
 - 10% of patients with substance use disorders receive evidence-based practices
3. Mental health treatment programs may exclude patients with substance use disorders
4. Funding for addiction treatment is insufficient to meet the demand
5. People with drug use are frequently sent to prison rather than treatment programs
6. People in recovery are always under suspicion
7. If patients have a criminal history because of their drug use, then this causes future stigma in terms of employment, housing & educational loans

Stigma – Blaming the Victim

- Most people in Ohio believe that substance use disorders are the patient's fault, they may not understand that addiction is a brain disease

% of Ohioans reporting that they *strongly agree* or *agree somewhat* that people with substance abuse or mental health problems are largely to blame for their own condition



POLICIES & REGULATIONS

CDC Opioid Prescribing Guidelines

Chronic Pain

1. Opioids are not first-line therapy
2. Establish goals for pain and function
3. Discuss risks and benefits
4. Use immediate-release opioids when starting
5. Use the lowest effective dose
6. Prescribe short durations for acute pain
7. Evaluate benefits and harms frequently
8. Use strategies to mitigate risk
9. Review PDMP data
10. Use urine drug testing
11. Avoid concurrent opioid and benzodiazepine prescribing
12. Offer treatment for opioid use disorder

GCOAT Emergency Department Guidelines

- Opioids will be prescribed only when appropriate based on symptoms, overall condition, clinical exam and risk for addiction
 - Opioids will not be routinely given in injection
 - Prescriptions will typically not be provided if the patient has previously presented with the same problem or has received an opioid rx from another provider in the last month
 - IV Demerol is discouraged
- Emergency medical clinicians will not routinely provide:
 - Replacement prescriptions for lost, destroyed or stolen
 - Replacement for buprenorphine or methadone
 - Long acting or controlled release opioids
- ED Clinicians should check the PDMP, and have the right to request photo ID and preform a drug screen
- Prescriptions should be limited to a 3 day supply
- Patients receiving opioid prescription should be provided with information on addictive nature, dangers of misuse, proper storage and disposal

Only guidelines, currently evaluating implementation & impact

OH House Bill 93

- Passed May 20, 2011
- Management of Pain Clinics
 - *Convicted felons cannot have an ownership stake in pain clinics*
- Drug take-back programs
- Coroner's report drug overdoses to Medical Board
- Medical Board education and Patient Safety Programs

Ohio HB341

Mandatory registration and use of Ohio's PDMP:

- Prescribers must request PDMP report for previous 12 month before prescribing opioids or benzodiazepines
 - Some exemptions
- Pharmacists must check PDMP prior to dispensing a controlled substance

Opioid Prescribing Practices

Ohio Automated Rx Reporting System

77 South High Street, Room 1702; Columbus, OH 43215-6126

-Equal Opportunity Employer and Service Provider-

TEL: 614/466-4143

E-MAIL: Info@ohiopmp.gov

Fax: 614/644-8556

TTY/TDD: Use the Ohio Relay Service: 1-800/750-0750

URL: <http://www.ohiopmp.gov>

Co-prescribing of opioids & benzodiazepines

Patient Rx History Report

MICKY MOUSE

Date: 1/27/2014 10:20:42 AM

17057177

Search Criteria: (Last Name = 'mouse' And First Name = 'micky') And D.O.B. = '1/1/1928' And Gender = 'M' And Street = " And Zip = '44610' And Phone = " And Request Period = '1/1/2013 to 1/27/2014'

Patients included in report that appear to match search criteria

0314 MICKEY MOUSE, DOB 1/1/1928; 4568 SR 98, BOX 456 , BERLIN, OH 44610

0809 MICKEY MOUSE, DOB 1/1/1928; 4587 CR 45 , HOLMESVILLE, OH 44633

1416 MICKEY MOUSE, DOB 1/1/1928; 1357 SR 45, BOX 65 , BERLIN, OH 44610

2197 MICKEY MOUSE, DOB 1/1/1928; 4586 E MAIN ST , BERLIN, OH 44610

2822 MICKEY MOUSE, DOB 1/1/1928; 7852 E MAIN ST , BERLIN, OH 44610

2855 MICKEY MOUSE, DOB 1/1/1928; PO BOX 102 , BERLIN, OH 44610

3461 MICKEY MOUSE, DOB 1/1/1928; 5668 ST RT 45 , BERLIN, OH 44610

6088 MICKEY MOUSE, DOB 1/1/1928; PO BOX 45 , BERLIN, OH 44610

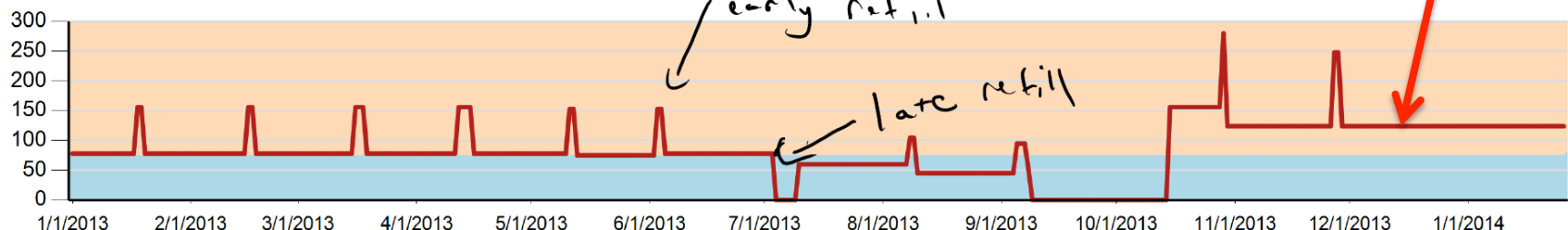
Active Cumulative Morphine Equivalent

See explanation provided at the end of the report

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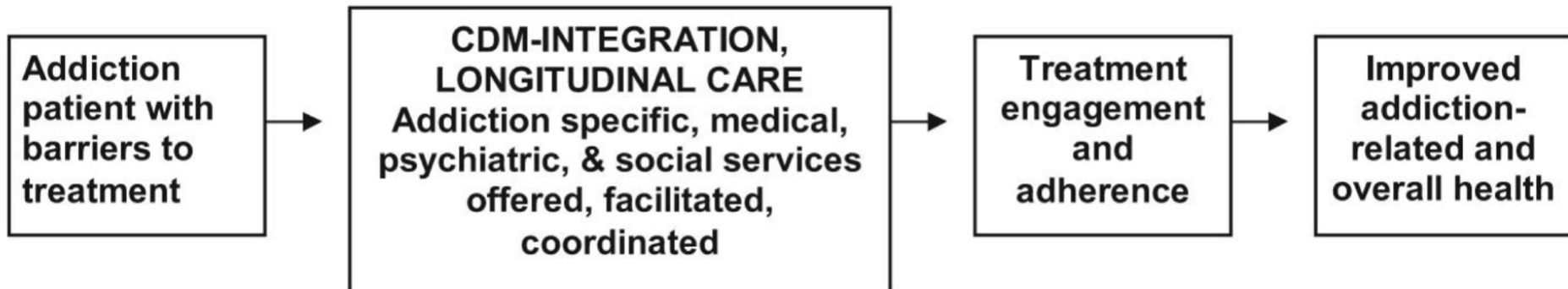
Ohio implemented 80
MED "pause"

Active Cumulative Morphine Equivalent (1/1/2013 - 1/26/2014)

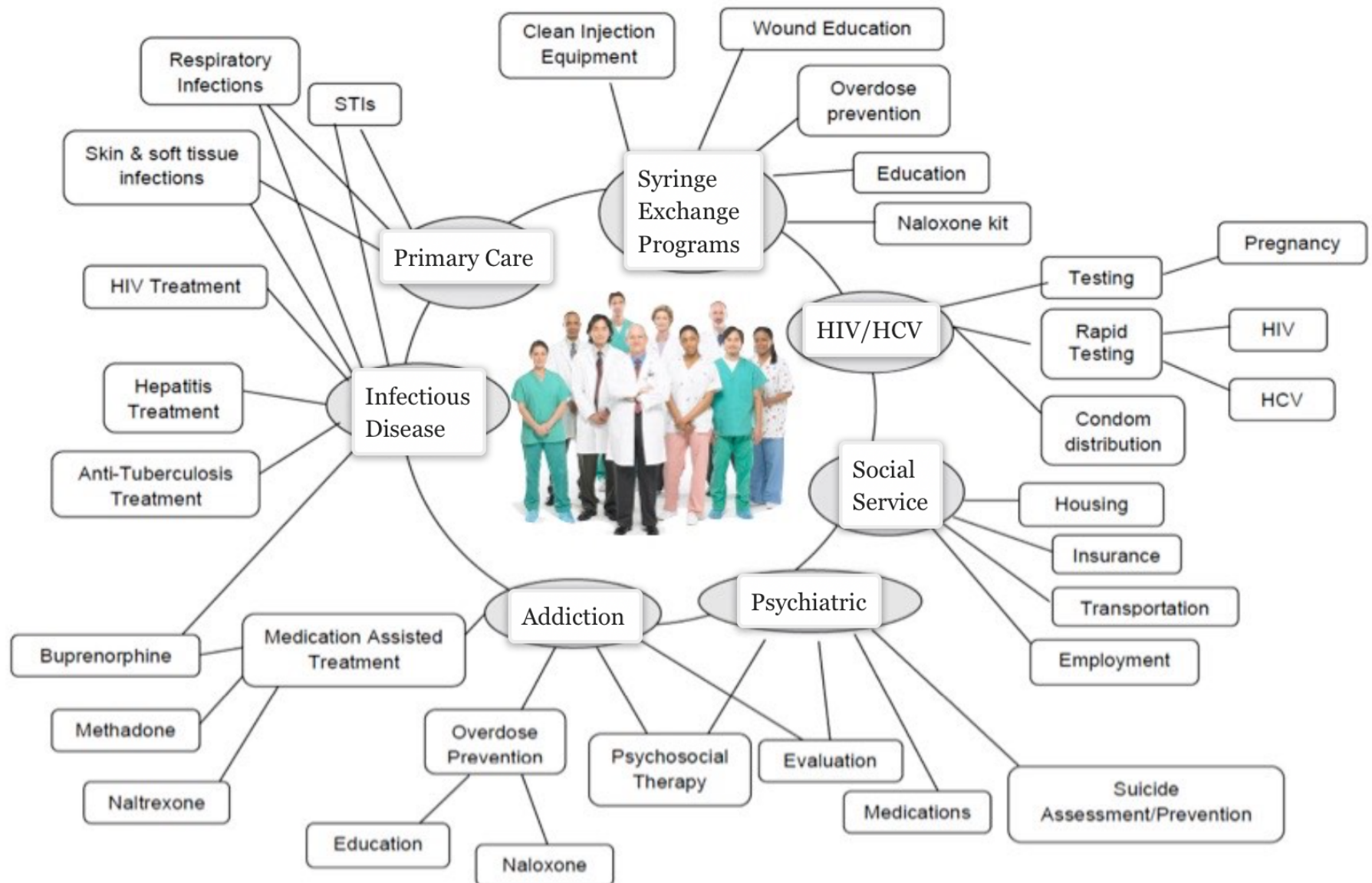


80 - Press Pause Mickey Mouse

Cross Discipline Approach to Care



Integrated Treatment Model





Kelsey Grace Endicott Eulogy

Never ever did I think that God would decide to call you home so soon. It has been many long, hard, agonizing battles for the last few years and you fought like a warrior every step of the way. Addiction however, won the war. To the person who doesn't understand addiction she is just another statistic who chose to make a bad decision. A very uneducated statement indeed but nonetheless that is what they will say along with some other very hurtful statements. I don't care though because for the people who do understand, this was our baby, our youngest, our child, our daughter and as a mother; my every thing. She was a mother, a sister, an auntie, a niece, a granddaughter, a friend, a cousin, a human being and an addict. With her award winning smile, sparkling diamond eyes, witty dry humor, loyalty to



Kelsey Grace Endicott Eulogy



KATHLEEN ERRICO · SATURDAY, APRIL 9, 2016



her feel normal like everyone else. Heroin told her I can make you feel accepted, I can make you feel alright, I can make you feel worthy, I can make you feel normal, I can make you feel loved, I can make you feel nothing and make you feel like everything will be ok. What it didn't tell her was how it would devastate her family and tear it apart, how it would take her job and leave her penniless, how it would steal her son from her arms , how it would take her home , how it would take her sparkle, how it would take her smile, how it would take her humor and how it would take and take and take until it took her life.